



March 8, 2016

Marine Fisheries
ENVIRONMENTAL QUALITY

Shellfish Aquaculture Recommendations



Division of Marine Fisheries Shellfish Aquaculture Recommendations

Session Law 2015-241 requires the N.C. Division of Marine Fisheries to develop recommendations covering a variety of topics for shellfish aquaculture and restoration.

- Approach:
 - N.C. Coastal Federation Oyster Steering Committee
 - Growers
 - Virginia Marine Resources Commission Shellfish Lease Program
 - N.C. Sea Grant Aquaculture
 - Scientists and experts
- Emulate successful state models
- Permitting
- Extension and Support



Recommendations

Nine areas addressed in the legislation

1. How best to spend resources to counter declining oyster populations and habitats:

- Implement 10-year plan outlined in Jean Preston report

2. Ecologically sound and cost-effective use of nonnative oyster species to accomplish oyster restoration:

- The division does not recommend nonnative oysters at this time
- Virginia/Chesapeake Bay experience with Suminoe oyster
- North Carolina experience with Suminoe oyster





3. Measures to address oyster disease, harvesting practices to balance the needs of the industry and promote long-term viability and health of oyster habitat and substrates:

- Re-establish northern regional shellfish sanitation lab
- Work to develop interstate agreements for movement of shellfish seed
- Continue Dermo sampling at division
- Establish shellfish pathologist position and lab at NCSU Center for Marine Science and Technology (CMAST)



4. How the state can promote and encourage economic aquaculture methods to improve oyster stock and populations:

- Fund full-time lease program staff and operating budget
- (Pending DEQ legal guidance) Surveyor or survey service may be required
- Develop shellfish aquaculture plan
- Develop proposal with N.C. Sea Grant for a training program for shellfish aquaculture
- Change statutes to reconcile administrative rent and production requirements with current contract renewal dates
- Streamline application process and bundle permits
- Increase penalties for lease theft



5. Long-term funding sources and water quality improvements:

- Oyster study panel
 - Resource Use Fees (Virginia model)
 - ✓ Harvesters
 - ✓ Dealers
 - ✓ Processors
 - ✓ Other
 - License fee increase for shellfish harvest dedicated to enhancement

6. Measures to increase oyster production for population growth and harvest:

- 10-year plan in Jean Preston report
- Planted seed oyster management areas (Gulf model)
- Plant and manage large scale (>5 acre) rotational sites





7. Options to expand private hatchery capacity:

- Development of demonstration hatchery at Carteret Community College
- N.C. Sea Grant extension
- Nursery methods and statute/rule changes needed to allow growout of seed shellfish

8. Options to promote the use of cultch planting:

- Partnerships with non-government organizations to develop closed shellfish sites to restore essential shell bottom habitat
- 10-year plan in Jean Preston report





9. Other resources that might be leveraged:

- Partner with non-governmental organizations
 - Existing state funds to leverage grants to non-governmental organizations
 - Resources to develop small scale sites
- Establish fund, mini-grants to encourage enhancement with match requirements for non-profits, colleges, etc.



Questions?

